

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/553,869
Source: PLJ
Date Processed by STIC: 11/02/2005

ENTERED



PCT

RAW SEQUENCE LISTING

DATE: 11/02/2005

PATENT APPLICATION: US/10/553,869

TIME: 09:43:36

Input Set : A:\16293PCT00 - Sequence listing GrB.ST25.txt

Output Set: N:\CRF4\11022005\J553869.raw

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3 <110> APPLICANT: Borean Pharma A/S
5 <120> TITLE OF INVENTION: Cleavage of fusion proteins using Granzyme B protease
7 <130> FILE REFERENCE: 3106
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/553,869
C--> 9 <141> CURRENT FILING DATE: 2005-10-21
9 <160> NUMBER OF SEQ ID NOS: 57
11 <170> SOFTWARE: PatentIn version 3.2
13 <210> SEQ ID NO: 1
14 <211> LENGTH: 243
15 <212> TYPE: PRT
16 <213> ORGANISM: Artificial
18 <220> FEATURE:
19 <223> OTHER INFORMATION: pro-IEGR-GrB-H6
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24 1 5 10 15
27 His Ser Arg Pro Tyr Met Ala Tyr Leu Met Ile Trp Asp Gln Lys Ser
28 20 25 30
31 Leu Lys Arg Cys Gly Gly Phe Leu Ile Gln Asp Asp Phe Val Leu Thr
32 35 40 45
35 Ala Ala His Cys Trp Gly Ser Ser Ile Asn Val Thr Leu Gly Ala His
36 50 55 60
39 Asn Ile Lys Glu Gln Glu Pro Thr Gln Gln Phe Ile Pro Val Lys Arg
40 65 70 75 80
43 Pro Ile Pro His Pro Ala Tyr Asn Pro Lys Asn Phe Ser Asn Asp Ile
44 85 90 95
47 Met Leu Leu Gln Leu Glu Arg Lys Ala Lys Arg Thr Arg Ala Val Gln
48 100 105 110
51 Pro Leu Arg Leu Pro Ser Asn Lys Ala Gln Val Lys Pro Gly Gln Thr
52 115 120 125
55 Cys Ser Val Ala Gly Trp Gly Gln Thr Ala Pro Leu Gly Lys His Ser
56 130 135 140
59 His Thr Leu Gln Glu Val Lys Met Thr Val Gln Glu Asp Arg Lys Cys
60 145 150 155 160
63 Glu Ser Asp Leu Arg His Tyr Tyr Asp Ser Thr Ile Glu Leu Cys Val
64 165 170 175
67 Gly Asp Pro Glu Ile Lys Lys Thr Ser Phe Lys Gly Asp Ser Gly Gly
68 180 185 190
71 Pro Leu Val Cys Asn Lys Val Ala Gln Gly Ile Val Ser Tyr Gly Arg
72 195 200 205
75 Asn Asn Gly Met Pro Pro Arg Ala Cys Thr Lys Val Ser Ser Phe Val
76 210 215 220
79 His Trp Ile Lys Lys Thr Met Lys Arg Tyr Leu Asn Ser His His His

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80 225                230                235                240
83 His His His
87 <210> SEQ ID NO: 2
88 <211> LENGTH: 243
89 <212> TYPE: PRT
90 <213> ORGANISM: Artificial
92 <220> FEATURE:
93 <223> OTHER INFORMATION: pro-IEPD-GrB-H6
95 <400> SEQUENCE: 2
97 Met Gly Ser Ile Glu Pro Asp Ile Ile Gly Gly His Glu Ala Lys Pro
98 1                5                10                15
101 His Ser Arg Pro Tyr Met Ala Tyr Leu Met Ile Trp Asp Gln Lys Ser
102                20                25                30
105 Leu Lys Arg Cys Gly Gly Phe Leu Ile Gln Asp Asp Phe Val Leu Thr
106                35                40                45
109 Ala Ala His Cys Trp Gly Ser Ser Ile Asn Val Thr Leu Gly Ala His
110                50                55                60
113 Asn Ile Lys Glu Gln Glu Pro Thr Gln Gln Phe Ile Pro Val Lys Arg
114 65                70                75                80
117 Pro Ile Pro His Pro Ala Tyr Asn Pro Lys Asn Phe Ser Asn Asp Ile
118                85                90                95
121 Met Leu Leu Gln Leu Glu Arg Lys Ala Lys Arg Thr Arg Ala Val Gln
122                100               105               110
125 Pro Leu Arg Leu Pro Ser Asn Lys Ala Gln Val Lys Pro Gly Gln Thr
126                115               120               125
129 Cys Ser Val Ala Gly Trp Gly Gln Thr Ala Pro Leu Gly Lys His Ser
130                130               135               140
133 His Thr Leu Gln Glu Val Lys Met Thr Val Gln Glu Asp Arg Lys Cys
134 145               150               155               160
137 Glu Ser Asp Leu Arg His Tyr Tyr Asp Ser Thr Ile Glu Leu Cys Val
138                165               170               175
141 Gly Asp Pro Glu Ile Lys Lys Thr Ser Phe Lys Gly Asp Ser Gly Gly
142                180               185               190
145 Pro Leu Val Cys Asn Lys Val Ala Gln Gly Ile Val Ser Tyr Gly Arg
146                195               200               205
149 Asn Asn Gly Met Pro Pro Arg Ala Cys Thr Lys Val Ser Ser Phe Val
150                210               215               220
153 His Trp Ile Lys Lys Thr Met Lys Arg Tyr Leu Asn Ser His His His
154 225               230               235               240
157 His His His
161 <210> SEQ ID NO: 3
162 <211> LENGTH: 243
163 <212> TYPE: PRT
164 <213> ORGANISM: Artificial
166 <220> FEATURE:
167 <223> OTHER INFORMATION: pro-IEAD-GrB-H6
169 <400> SEQUENCE: 3
171 Met Gly Ser Ile Glu Ala Asp Ile Ile Gly Gly His Glu Ala Lys Pro
172 1                5                10                15

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175 His Ser Arg Pro Tyr Met Ala Tyr Leu Met Ile Trp Asp Gln Lys Ser
176          20          25          30
179 Leu Lys Arg Cys Gly Gly Phe Leu Ile Gln Asp Asp Phe Val Leu Thr
180          35          40          45
183 Ala Ala His Cys Trp Gly Ser Ser Ile Asn Val Thr Leu Gly Ala His
184          50          55          60
187 Asn Ile Lys Glu Gln Glu Pro Thr Gln Gln Phe Ile Pro Val Lys Arg
188 65          70          75          80
191 Pro Ile Pro His Pro Ala Tyr Asn Pro Lys Asn Phe Ser Asn Asp Ile
192          85          90          95
195 Met Leu Leu Gln Leu Glu Arg Lys Ala Lys Arg Thr Arg Ala Val Gln
196          100         105         110
199 Pro Leu Arg Leu Pro Ser Asn Lys Ala Gln Val Lys Pro Gly Gln Thr
200          115         120         125
203 Cys Ser Val Ala Gly Trp Gly Gln Thr Ala Pro Leu Gly Lys His Ser
204          130         135         140
207 His Thr Leu Gln Glu Val Lys Met Thr Val Gln Glu Asp Arg Lys Cys
208 145          150         155         160
211 Glu Ser Asp Leu Arg His Tyr Tyr Asp Ser Thr Ile Glu Leu Cys Val
212          165         170         175
215 Gly Asp Pro Glu Ile Lys Lys Thr Ser Phe Lys Gly Asp Ser Gly Gly
216          180         185         190
219 Pro Leu Val Cys Asn Lys Val Ala Gln Gly Ile Val Ser Tyr Gly Arg
220          195         200         205
223 Asn Asn Gly Met Pro Pro Arg Ala Cys Thr Lys Val Ser Ser Phe Val
224          210         215         220
227 His Trp Ile Lys Lys Thr Met Lys Arg Tyr Leu Asn Ser His His His
228 225          230         235         240
231 His His His
235 <210> SEQ ID NO: 4
236 <211> LENGTH: 243
237 <212> TYPE: PRT
238 <213> ORGANISM: Artificial
240 <220> FEATURE:
241 <223> OTHER INFORMATION: pro-IEPD-GrB-H6 C228S
243 <400> SEQUENCE: 4
245 Met Gly Ser Ile Glu Pro Asp Ile Ile Gly Gly His Glu Ala Lys Pro
246 1          5          10         15
249 His Ser Arg Pro Tyr Met Ala Tyr Leu Met Ile Trp Asp Gln Lys Ser
250          20          25          30
253 Leu Lys Arg Cys Gly Gly Phe Leu Ile Gln Asp Asp Phe Val Leu Thr
254          35          40          45
257 Ala Ala His Cys Trp Gly Ser Ser Ile Asn Val Thr Leu Gly Ala His
258 50          55          60
261 Asn Ile Lys Glu Gln Glu Pro Thr Gln Gln Phe Ile Pro Val Lys Arg
262 65          70          75          80
265 Pro Ile Pro His Pro Ala Tyr Asn Pro Lys Asn Phe Ser Asn Asp Ile
266          85          90          95
269 Met Leu Leu Gln Leu Glu Arg Lys Ala Lys Arg Thr Arg Ala Val Gln

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270          100          105          110
273 Pro Leu Arg Leu Pro Ser Asn Lys Ala Gln Val Lys Pro Gly Gln Thr
274          115          120          125
277 Cys Ser Val Ala Gly Trp Gly Gln Thr Ala Pro Leu Gly Lys His Ser
278          130          135          140
281 His Thr Leu Gln Glu Val Lys Met Thr Val Gln Glu Asp Arg Lys Cys
282 145          150          155          160
285 Glu Ser Asp Leu Arg His Tyr Tyr Asp Ser Thr Ile Glu Leu Cys Val
286          165          170          175
289 Gly Asp Pro Glu Ile Lys Lys Thr Ser Phe Lys Gly Asp Ser Gly Gly
290          180          185          190
293 Pro Leu Val Cys Asn Lys Val Ala Gln Gly Ile Val Ser Tyr Gly Arg
294          195          200          205
297 Asn Asn Gly Met Pro Pro Arg Ala Ser Thr Lys Val Ser Ser Phe Val
298          210          215          220
301 His Trp Ile Lys Lys Thr Met Lys Arg Tyr Leu Asn Ser His His His
302 225          230          235          240
305 His His His
309 <210> SEQ ID NO: 5
310 <211> LENGTH: 243
311 <212> TYPE: PRT
312 <213> ORGANISM: Artificial
314 <220> FEATURE:
315 <223> OTHER INFORMATION: pro-IEPD-GrB-H6 C228A
317 <400> SEQUENCE: 5
319 Met Gly Ser Ile Glu Pro Asp Ile Ile Gly Gly His Glu Ala Lys Pro
320 1          5          10          15
323 His Ser Arg Pro Tyr Met Ala Tyr Leu Met Ile Trp Asp Gln Lys Ser
324          20          25          30
327 Leu Lys Arg Cys Gly Gly Phe Leu Ile Gln Asp Asp Phe Val Leu Thr
328          35          40          45
331 Ala Ala His Cys Trp Gly Ser Ser Ile Asn Val Thr Leu Gly Ala His
332          50          55          60
335 Asn Ile Lys Glu Gln Glu Pro Thr Gln Gln Phe Ile Pro Val Lys Arg
336 65          70          75          80
339 Pro Ile Pro His Pro Ala Tyr Asn Pro Lys Asn Phe Ser Asn Asp Ile
340          85          90          95
343 Met Leu Leu Gln Leu Glu Arg Lys Ala Lys Arg Thr Arg Ala Val Gln
344          100          105          110
347 Pro Leu Arg Leu Pro Ser Asn Lys Ala Gln Val Lys Pro Gly Gln Thr
348          115          120          125
351 Cys Ser Val Ala Gly Trp Gly Gln Thr Ala Pro Leu Gly Lys His Ser
352          130          135          140
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355 His Thr Leu Gln Glu Val Lys Met Thr Val Gln Glu Asp Arg Lys Cys
356 145          150          155          160
359 Glu Ser Asp Leu Arg His Tyr Tyr Asp Ser Thr Ile Glu Leu Cys Val
360          165          170          175
363 Gly Asp Pro Glu Ile Lys Lys Thr Ser Phe Lys Gly Asp Ser Gly Gly
364          180          185          190

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Input Set : A:\16293PCT00 - Sequence listing GrB.ST25.txt

Output Set: N:\CRF4\11022005\J553869.raw

367 Pro Leu Val Cys Asn Lys Val Ala Gln Gly Ile Val Ser Tyr Gly Arg
 368 195 200 205
 371 Asn Asn Gly Met Pro Pro Arg Ala Ala Thr Lys Val Ser Ser Phe Val
 372 210 215 220
 375 His Trp Ile Lys Lys Thr Met Lys Arg Tyr Leu Asn Ser His His His
 376 225 230 235 240
 379 His His His

383 <210> SEQ ID NO: 6

384 <211> LENGTH: 243

385 <212> TYPE: PRT

386 <213> ORGANISM: Artificial

388 <220> FEATURE:

389 <223> OTHER INFORMATION: pro-IEPD-GrB-H6 C228T

391 <400> SEQUENCE: 6

393 Met Gly Ser Ile Glu Pro Asp Ile Ile Gly Gly His Glu Ala Lys Pro
 394 1 5 10 15
 397 His Ser Arg Pro Tyr Met Ala Tyr Leu Met Ile Trp Asp Gln Lys Ser
 398 20 25 30
 401 Leu Lys Arg Cys Gly Gly Phe Leu Ile Gln Asp Asp Phe Val Leu Thr
 402 35 40 45
 405 Ala Ala His Cys Trp Gly Ser Ile Asn Val Thr Leu Gly Ala His
 406 50 55 60
 409 Asn Ile Lys Glu Gln Glu Pro Thr Gln Gln Phe Ile Pro Val Lys Arg
 410 65 70 75 80
 413 Pro Ile Pro His Pro Ala Tyr Asn Pro Lys Asn Phe Ser Asn Asp Ile
 414 85 90 95
 417 Met Leu Leu Gln Leu Glu Arg Lys Ala Lys Arg Thr Arg Ala Val Gln
 418 100 105 110
 421 Pro Leu Arg Leu Pro Ser Asn Lys Ala Gln Val Lys Pro Gly Gln Thr
 422 115 120 125
 425 Cys Ser Val Ala Gly Trp Gly Gln Thr Ala Pro Leu Gly Lys His Ser
 426 130 135 140
 429 His Thr Leu Gln Glu Val Lys Met Thr Val Gln Glu Asp Arg Lys Cys
 430 145 150 155 160
 433 Glu Ser Asp Leu Arg His Tyr Tyr Asp Ser Thr Ile Glu Leu Cys Val
 434 165 170 175
 437 Gly Asp Pro Glu Ile Lys Lys Thr Ser Phe Lys Gly Asp Ser Gly Gly
 438 180 185 190
 441 Pro Leu Val Cys Asn Lys Val Ala Gln Gly Ile Val Ser Tyr Gly Arg
 442 195 200 205
 445 Asn Asn Gly Met Pro Pro Arg Ala Thr Thr Lys Val Ser Ser Phe Val
 446 210 215 220
 449 His Trp Ile Lys Lys Thr Met Lys Arg Tyr Leu Asn Ser His His His
 450 225 230 235 240

453 His His His

457 <210> SEQ ID NO: 7

458 <211> LENGTH: 243

459 <212> TYPE: PRT

460 <213> ORGANISM: Artificial

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/553,869

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Input Set : A:\16293PCT00 - Sequence listing GrB.ST25.txt
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Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27

Seq#:28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51

Seq#:52,53,54,55,56,57

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/553,869

DATE: 11/02/2005

TIME: 09:43:37

Input Set : A:\16293PCT00 - Sequence listing GrB.ST25.txt

Output Set: N:\CRF4\11022005\J553869.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No

L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date